



California Air Resources Board

California Environmental Protection Agency

Forest Stakeholder Workshop on Forest Protocols Update

July 18, 2008

Today's Meeting

- Status report on progress to update the California Climate Action Registry (CCAR) Forest Protocols
- Won't be discussing the Draft Scoping Plan on Climate Change (other forums exist)

Background

- AB 32 sets bold goals for California to address climate change
- Air Resources Board encourages voluntary actions to reduce GHG emissions
- ARB recognized the role the CCAR Forest Protocols could play in voluntary GHG reductions

Air Resources Board Action

- In October 2007, ARB adopted the CCAR Forest Protocols for voluntary purposes
- Board adopted sector, project, and certification protocols
- Board also recognized the need to develop additional methods to encourage broader involvement in forest projects
- Directed ARB staff to initiate a stakeholder process to develop additional approaches for forest carbon accounting

Air Resources Board Action

- ARB contracted with CCAR to reorganize and lead the workgroup
- Directed staff to return to the Board by the end of the year with additional approaches

October 2007 Air Resources Board Resolution

- WHEREAS, the CCAR forestry protocols provide a technically sound method for forest carbon accounting
- WHEREAS, additional forest carbon accounting methods or forest protocol project types are needed to encourage broader forest sector involvement and reduce potential barriers to participation
- “...BE IT FURTHER RESOLVED that the Board directs ARB staff to initiate a stakeholder process working with agencies, private and commercial landowners, and other interested parties, to develop additional approaches for forest carbon accounting”

Forest Protocol Update Progress Report

Forest Stakeholder Group

July 18, 2008



Why do Forests Matter in a Global Warming Context?



The Dual Nature of Forests

Source of Sequestration

Forests have the capacity to store atmospheric carbon dioxide into biomass materials through photosynthesis

Source of Emissions

Forests release their some of their stored carbon through fire, disease, natural decay, or non-sustainable harvesting practices

Management actions help to define which side of the equation our forests are on. The CCAR forest protocols establish the accounting framework to determine the extent to which positive management activities provide climate benefits.

Protocol Update Process



- Meetings are held every three weeks
- Agenda and minutes from each meeting are posted to the CCAR's website:

www.climateregistry.org/tools/protocols/project-protocols/forests/forest-protocol-updates.html

General Goals of Protocol Update Process



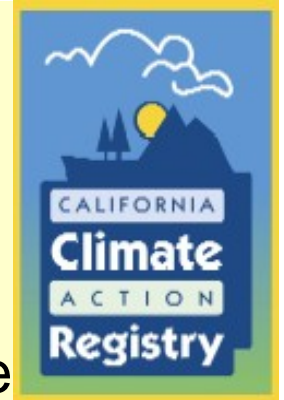
- Develop methods that allow for greater landowner participation, both public and private, large and small
- Make improvements for clarity, accuracy, conservatism, and cost-effectiveness (where doing so does not infringe on other principles)
- Seek approaches to updates that enable the protocols to be considered outside California

Protocol Workgroup Participants



- Air Resources Board
- Beaty and Associates
- CalFire
- California Climate Action Registry
- California Forestry Association
- California State Parks
- Environmental Defense Fund
- Green Diamond Resources
- Pacific Forest Trust
- Scientific Certification Systems
- Sierra Pacific Industries
- The Nature Conservancy
- US Environmental Protection Agency
- Winrock International
- University of California
- World Resources Institute

Timeline



- July 18 Present progress and anticipated update to the Forestry Stakeholder Group
- November 18 Present progress and draft updates to CCAR Board
- November 20- Present progress and draft updates at ARB Board Hearing
- November - December Public review with workshops in Ukiah, Redding, and Sacramento, Public Comment period
- February/March Present final updates for adoption to CCAR and ARB

Exploring Opportunities to Meet General Goals



The workgroup is organized into committees that are investigating ways to meet the general goals of the update process in the following areas:

- Public Lands Baseline
- Private Lands Baseline
- Permanence
- Leakage
- Verification
- Oak Woodlands/Other Forests
- Avoided Conversion
- Co-benefits
- Quantification

Many ideas have been discussed and interim concepts adopted
– **Nothing is Final** -

Leakage Opportunity



- Current protocol requires entity reporting to assess activity-shifting leakage for all projects
- The intent is to quantify shifts in management activity associated with the project activity
- The cost of quantifying forest stocks at the entity level is a barrier to project participation

Leakage

Guidance for Assessment Area



Draft guidance has been developed that defines the assessment area for activity-shifting leakage based on level of risk of leakage associated with the project

The refinement may lead to an assessment area that is based on project, administrative, and/or entity boundaries

Reduces cost-related barriers associated with many projects

Baseline Opportunities



- The current baseline approach for forest management is limited to private commercial forestlands in California
- Some improvements have been suggested to better represent the 'business as usual' approach

Baselines

Public Lands Forest Management Baseline Added



.... the baseline qualitative characterization shall reflect common forest management practice for the agency and agency project area (harvest retention standards, rotations, and other practices that significantly affect carbon stocks) determined by applicable statutes, regulations, policies, plans and budget over the past ten years.

The subsequent quantification of the baseline projection shall use a current inventory estimate and project it into the future for the life of the project based on the qualitative characterization. In the event that such statutes, regulations, policies, budgets, and plans have changed to materially affect the project carbon over the past ten years, the policies leading to the most conservative baseline carbon estimates should be used.

Increases Participation

Baselines

Private Lands Forest Management Baseline Refined



There are three approaches being developed and evaluated:

- Practice-based approach – modeling approach with guidelines based on common management practices –can be developed into a performance standard
- Mean Inventory Approach – uses FIA data to develop a performance standard
- Current Stocks – Baseline is equal to current inventory

**Update will improve clarity, conservatism, and accuracy.
The updated approach will be exportable outside of California**

Definitional Opportunities



- The current baseline approach for reforestation requires that lands be out of forest cover for at least ten years

Definitions

Reforestation Project Definition Refined



The establishment and subsequent maintenance of native tree cover on lands that were previously forested but have had less than 10% tree canopy cover for a minimum time of ten years or have been subject to a significant disturbance within the last ten years that is not the result of intentional or negligent acts of the landowner or reporting entity

Increases Participation

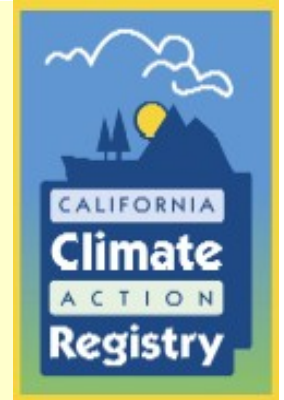
Co-benefits Opportunities



- The required practice of 'Natural Forest Management' in the current protocols is unclear as to types of regeneration methods allowed
- Desire to maintain exemplary co-benefit standards through comparison with other protocols identified some areas for consideration

Co-benefits

'Natural Forest Management' Definition Refined



Forest management practices that promote and maintain native forest comprised of multiple ages and mixed native species at multiple scales up to the watershed spatial scale The following key principles/definitions must apply regardless of the silvicultural or regeneration method used to manage the forest:

- Maintain tree species composition and distribution consistent with the forest type and forest soils native to the assessment area
- Maintain hydrologic patterns and functions to support and functions to support endemic plant and wildlife species
- Manage the distribution of habitat/age classes and structural elements to support all endemic plant and wildlife species

Increases Participation

Permanence Opportunities



- Permanence and project life are not defined in the current protocols
- Understanding of permanence in GHG accounting includes assessment and management of risk of reversal
- Flexibility requested in addressing legal instruments that mitigate risk of reversal associated with land conversion

Permanence

Permanence Solutions Developing



- Permanence defined as lifetime of CO₂ in the atmosphere = 100 years. Project life has a basis of 100 years
- Managing for permanent reductions is being evaluated as a risk-based assessment of non-permanence (reversals)
- Additional instruments to conservation easements being considered
- Concept of buffer pools to address risk of reversals being explored

Improves accuracy and increases participation

Quantification Opportunities



- Biomass equations can be updated and improved
- Accounting of forest carbon pools could be improved to increase accuracy and/or improve cost-effectiveness
- Sampling requirements are considered by some to be expensive to implement and certain elements may not be necessary
- Clarifying guidance has been requested

Quantification

Quantification Solutions Developing



- Committee will investigate options for biomass equations
- Guidance will be provided for determining which forest carbon pools need to be reported based on each project
- Sampling requirements will be revisited for thoroughness and cost-effectiveness

Improves accuracy, cost effectiveness and increases participation

Meeting the Challenge



.....Encouraging Broader Participation and Reducing Barriers

- Increasing options to meet permanency requirements
- Enabling all silviculture systems management to be included
- Development of a public lands baseline for forest management
- Enabling reforestation projects in post disturbance events
- Refining assessment area for activity-shifting leakage

Meeting the Challenge



..... improvements for clarity, accuracy, conservatism, and cost-effectiveness

- Improving biomass equations (where necessary)
- Refining baseline approach
- Updating requirements for optional/required carbon pools
- Defining permanence and improving the rigor to assess the risk of non-permanence

Contact Information



All workgroup members email addresses can be found at:

<http://www.climateregistry.org/tools/protocols/project-protocols/forests/forest-protocol-updates.html>

John Nickerson
john@climateregistry.org
707-489-2443

ARB and Protocol Process General

- ***“where appropriate and to the maximum extent feasible”*** use CCAR protocols (AB32)
- **ARB has modified CCAR cement, power/utilities, and general combustion reporting protocols for use in mandatory reporting program**
- **ARB has worked closely with CCAR since 2006**

ARB and Protocol Process

Forest Protocols

- **Protocol update process was initiated by Board request to ARB staff**
- **Workgroup update process is led and organized by CCAR**
 - **experience**
 - **consistency with protocol development**
- **Protocols are living documents that change over time to reflect the best available knowledge**

ARB and Protocol Process Forest Protocols

- **ARB has been a participating and voting member of the Forest Protocol Workgroup**
- **ARB participation ensures early consistency with ARB requirements under AB32 and streamlines ARB public and staff review process**
- **Reflections on successes to date**

Updated forest protocols Where they fit into AB32

Forest sector reductions for use in voluntary market achieve goals of:

- **Early action**
- **Scoping Plan – non-regulatory forest sector actions**

Forest sector reductions will be permitted for compliance purposes, but will require ARB verification (yet to be developed)

Opportunities for public comment

- July 18 Stakeholder workshop
- November 18 Updated draft released
- November 18 Draft updates presented to CCAR Board (Sacramento)
- November 20-21 Draft updates presented at Air Resources Board Hearing
- November/December Public comment period with workshops in Ukiah, Redding, and Sacramento
- February/March Final updated draft for adoption to CCAR/ARB Boards

ARB Contact Information

**Richard Bode, Branch Chief, Emissions
Inventory Branch**

(916) 323-8413

rbode@arb.ca.gov

Jeanne Panek, Air Pollution Specialist

(916) 322-1029

jpanek@arb.ca.gov